



Wolf Creek Generating Station After Action Report/ Improvement Plan

Drill Date – August 15, 2018

Radiological Emergency Preparedness (REP) Program



FEMA

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EXECUTIVE SUMMARY

On August 15, 2018, the Federal Emergency Management Agency (FEMA) evaluated a medical services drill in the plume exposure pathway emergency planning zone (EPZ) around the Wolf Creek Generating Station (WCGS). The purpose of the medical services drill was to assess the ability of offsite agencies in responding to a radiological emergency involving a simulated medical injury to a person with radiological contamination. These events were held in accordance with FEMA policies and guidance concerning the exercise of State and local radiological emergency response plans and procedures.

The previous medical drill at this site was conducted on October 4, 2017. The qualifying emergency preparedness exercise was conducted on November 7, 1984.

FEMA wishes to acknowledge the efforts of all who participated in and supported the drill including the State of Kansas, and the risk jurisdiction of Coffey County. The staff of the utility should also be commended for their work on the scenario development and drill preparation.

Protecting the public health and safety is the full-time job of some of the medical drill participants and an additional assigned responsibility for others. Still, others have willingly sought this responsibility by volunteering to provide vital emergency services to their community. The cooperation and teamwork of all the participants was evident during this medical drill. Thanks to all who participated in this community service.

The State and local organizations demonstrated knowledge of their emergency response plans and procedures and adequately implemented them. There were no Level 1 or Level 2 findings or planning issues identified as a result of this medical drill. There were no open findings to be corrected from the previous medical drill.

SECTION 1: EXERCISE OVERVIEW

1.1 Exercise Details

Exercise Name

Wolf Creek Generating Station

Type of Exercise

Drill

Exercise Date

August 15, 2018

Program

Department of Homeland Security/FEMA Radiological Emergency Preparedness Program

Scenario Type

Radiological Emergency

1.2 Exercise Planning Team Leadership

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1.3 Participating Organizations

Agencies and organizations of the following jurisdictions participated in the Wolf Creek Generating Station medical drill:

Risk Jurisdictions

Coffey County Emergency Medical Services
Coffey County Hospital
Coffey County Emergency Management Director

Private Organizations

Wolf Creek Generating Station

SECTION 2: EXERCISE DESIGN SUMMARY

2.1 Exercise Purpose and Design

Wolf Creek Generating Station (WCGS) Emergency Plan describes WCGS's capability to respond effectively to a radiological emergency at the site, and provides a detailed description of WCGS's interaction with Federal, State, and local government agencies as well as private organizations. The Emergency Plan provides for continuous emergency preparedness including the conduct of annual exercises and preparatory drills.

The purpose of the August 15, 2018, medical drill was to activate and evaluate portions of the Coffey County emergency plans and associated implementing procedures, in accordance with 44 CFR 350. Further, this drill tested the WCGS emergency response community's ability to assess and respond to emergency conditions and coordinate efforts with other agencies for protection of the health and safety of the public. The conduct and evaluation of this drill provided additional training for emergency response organization personnel and a means to further enhance WCGS emergency response capability.

The scenario was utilized by the drill controllers/evaluators as the control mechanism for the conduct of the medical drill. WCGS Emergency Planning personnel developed the scenario with input from Kansas Department of Health and Environment staff and was reviewed and approved by FEMA Region VII.

2.2 Exercise Objectives, Capabilities and Activities

Wolf Creek Generating Station (WCGS) exercises and drills are conducted to test and provide the opportunity to evaluate emergency plans, associated implementing procedures, facilities, and equipment. This medical drill tested the WCGS offsite response organizations' ability to assess and respond to emergency conditions as well as coordinate efforts with other agencies for protection of the health and safety of the public.

The WCGS Emergency Preparedness Exercise & Drill Program objectives are based on the Federal requirements delineated in 44 CFR 350, as well as on the priorities and procedures detailed in the emergency preparedness plans for the State of Kansas and Coffey County. Additional guidance provided in NUREG-0654, NUREG-0696, and NUREG-0737, was utilized in developing these objectives.

The objective of this medical services drill was to test the implementation of the plans and procedures of participating agencies, along with the capability of these agencies to conduct operations in accordance with these plans. This objective is further defined by the criteria evaluated for each participating location.

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The medical drill included participation by Coffey County Emergency Medical Services and Coffey County Hospital. A summary of the specific criteria evaluated for each of the participating organizations is listed in Table 3.1.

2.3 Scenario Summary

The following is the scenario provided by Wolf Creek Generating Station (WCGS) and approved by Department of Homeland Security/FEMA for use during the medical services drill which took place on August 15, 2018.

The patient is a 45 year-old male resident of Coffey County who lives within the affected area of the evacuation orders. A plant radioactive release is in progress.

This man and his friend evacuated from the area and went to the Reception Center.

Upon arriving at the parking lot, the man opens up his trunk to retrieve his belongings and the wind blows the trunk lid down hitting him hard in the area of his right clavicle (collarbone).

Patient originated from affected area, therefore possibility of radioactive contamination exists. Contamination levels upon initial monitoring are 30,000 cpm on right forehead area and 1,000 cpm on the patient's right arm.

SECTION 3: ANALYSIS OF CAPABILITIES

3.1 Exercise Evaluation and Results

Contained in this section are the results and findings of the evaluation of all jurisdictions and functional entities that participated in the August 15, 2018, out-of-sequence medical services drill. The drill tested the offsite emergency response capabilities of state and local governments in the 10-mile plume emergency planning zone surrounding the Wolf Creek Nuclear Generating Station.

Each jurisdiction and functional entity was evaluated on the basis of its demonstration of the criteria delineated in FEMA's Radiological Emergency Preparedness Program Manual, dated January 2016.

3.2 Summary Results of Exercise Evaluation

Table 3.1 presents all the exercise criteria which were successfully demonstrated during this medical drill, at all participating jurisdictions and functional entities. Exercise criteria are listed by number and the demonstration status of those criteria is indicated by the use of the following letters:

M – Met (No Findings assessed and no unresolved Findings from prior exercises)

1– Level 1 Finding assessed

2– Level 2 Finding assessed

P - Planning Issues

N - Not Demonstrated

Unclassified
Radiological Emergency Preparedness Program (REP)

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Table 3.1 - Summary of Exercise Evaluation

DATE: 2018-08-15 SITE: Wolf Creek Generating Station M: Met, L2: Level 2 Finding, L1: Level 1 Finding, P: Plan Issue, N: Not Demonstrated			
		Coffey Co. EMS	Coffey Co. Hospital
Emergency Operations Management			
Mobilization	1a1		
Facilities	1b1		
Direction & Control	1c1		
Communications Equipment	1d1		
Equipment and Supplies	1e1	M	M
Protective Action Decision Making			
EW Exp. Control Decisions	2a1		
PARs	2b1		
PADs	2b2		
PADs for Disabled/Functional Needs	2c1		
Ingestion PADs	2d1		
RRR Decisions	2e1		
Protective Action Implementation			
EW Exp. Control Implementation	3a1	M	M
KI Public/Institutionalized	3b1		
PAD Imp. Disabled/Functional Needs	3c1		
PAD Imp. Schools	3c2		
TACP Establishment	3d1		
Impediments to Evacuation	3d2		
Implementation of Ingestion PADs	3e1		
Ingestion Strategies and Information	3e2		
Imp. of RRR Decisions	3f1		
Field Measurement and Analysis			
RESERVED	4a1		
Field Team Management	4a2		
Field Team Operations	4a3		
Field Team Sampling	4b1		
Laboratory Operations	4c1		
Emergency Notification and Public Info			
Initial Alert & Notification	5a1		
RESERVED	5a2		
Backup Alert & Notification	5a3		
Exception Area Alerting	5a4		
Subsequent Public Information	5b1		
Support Operations/Facilities			
Reception Center Operations	6a1		
EW Monitoring & Decon	6b1		
Congregate Care	6c1		
Contaminated/Injured Transport & Care	6d1	M	M

3.3 Criteria Evaluation Summaries

3.3.1 Risk Jurisdictions

3.3.1.1 Coffey County Emergency Medical Services

Coffey County Emergency Medical Services is located in Burlington, Kansas. All three criteria were adequately demonstrated in accordance with the plans, procedures and extent of play agreement.

Personnel demonstrated excellent awareness and contamination control throughout the demonstration. Staff followed procedures for patient assessment and transport.

In summary, the status of DHS/FEMA criteria for this location is as follows:

- a. MET: 1.e.1, 3.a.1, 6.d.1
- b. LEVEL 1 FINDINGS: None
- c. LEVEL 2 FINDINGS: None
- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

3.3.1.2 Coffey County Hospital

Coffey County Hospital is located in Burlington, Kansas. All three criteria were adequately demonstrated in accordance with the plans, procedures and extent of play agreement.

Hospital staff displayed excellent teamwork in setting up the REA and the Buffer Nurse kept communication open throughout the drill. Emergency Room staff were extremely cautious not to spread contamination and executed an excellent decontamination demonstration.

In summary, the status of DHS/FEMA criteria for this location is as follows:

- a. MET: 1.e.1, 3.a.1, 6.d.1
- b. LEVEL 1 FINDINGS: None
- c. LEVEL 2 FINDINGS: None
- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

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SECTION 4: CONCLUSION

Based on the results of the August 15, 2018, medical services drill, the offsite radiological emergency response plans and preparedness for the State of Kansas and affected local jurisdictions are deemed adequate to provide reasonable assurance that appropriate measures can be taken to protect the health and safety of the public in the event of a radiological emergency. Therefore, 44 CFR Part 350 approval of the offsite radiological emergency response plans and preparedness for the State of Kansas, site-specific to the Wolf Creek Generating Station, will remain in effect.

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APPENDIX A: DRILL EVALUATORS AND TEAM LEADERS

DATE: 08/15/2018

SITE: Wolf Creek Generating Station

LOCATION	TEAM LEADER	AGENCY
Coffey County Emergency Medical Services	Greg Voss	FEMA R7
Coffey County Hospital	Jeff Clark	FEMA R7

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APPENDIX B: ACRONYMS AND ABBREVIATIONS

Acronym	Description
CFR	Code of Federal Regulations
CPM	Counts Per Minute
DHS	Department of Homeland Security
DRD	Direct Reading Dosimeter
EMS	Emergency Medical Service
EPZ	Emergency Planning Zone
EW	Emergency Worker
FEMA	Federal Emergency Management Agency
KDEM	Kansas Division of Emergency Management
KDHE	Kansas Department of Health & Environment
REA	Radiological Emergency Area
WCGS	Wolf Creek Generating Station

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